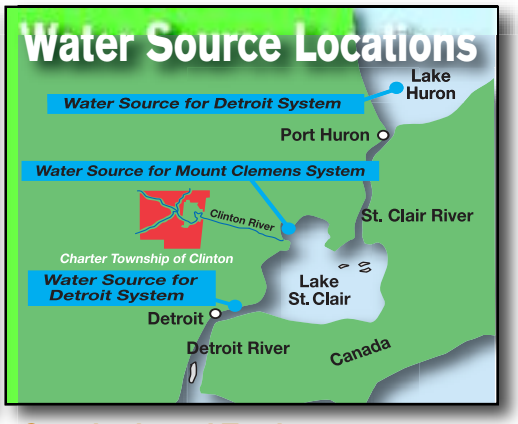
CHARTER TOWNSHIP OF CLINTON

ANNUAL 2011 Drinking Water Quality Report

A publication for residents of the Charter Township of Clinton



Is My Drinking Water Really Safe?

Yes, we take our responsibility to provide safe drinking water very seriously. Like you, we drink the same water and share the same concerns about its quality. The water sources serving the Charter Township of Clinton's almost 100,000 residents were in all cases found fully compliant with the standards for safe drinking water.

This 12th Annual Drinking Water Quality Report provides a summary of where Clinton Township's drinking water comes from, how it is treated and the results of water quality monitoring. The U.S. Environmental Protection Agency (EPA) requires all communities to produce and distribute water quality reports on an annual basis.

Drinking Water Standards and Testing

A contaminant is any substance that may pose a potential health concern if present in very large quantities. The highest amount allowable in drinking water is known as the maximum contaminant level. This limit is the standard for safe drinking water and is set by federal and/or state health agencies.

Where does Clinton Township's drinking water come from?

The Charter Township of Clinton receives its water supplies from both the City of Detroit and the City of Mount Clemens. Your source water from Detroit comes from the lower Lake Huron watershed and the Detroit River. Source water from Mount Clemens comes from Lake St. Clair.

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PUBLIC PARTICIPATION

Consumers have a right to know what is in their drinking water and where that water comes from. That is the basis for the Safe Drinking Water Act that requires each drinking water system to provide its customers with a brief Consumers Confidence Report outlining the water quality it delivers.

The Charter Township of Clinton is required to deliver this report to you by mail by July 2011. The reports are based on calendar-year data, so this report includes data collected in 2010. Additional copies of this report are available at the Township Civic Center.

Interested citizens in the Charter Township of Clinton are invited to attend the Board of Trustees meeting held every other Monday beginning at 6:30 p.m. at the Civic Center, 40700 Romeo Plank Road, Clinton Township, Michigan 48038. For further information regarding the exact date of the meeting contact the township at 586-286-8000.

For more information call the Water and Sewer Department at 586-286-9300.

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40700 Romeo Plank Road
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Test Results for 2010

Here are the contaminants that were detected in our water. **Your water meets or exceeds all state and federal guidelines for drinking water.**

City of Detroit Public Water System Detected Contaminants Table

(The results represent a combination of contaminants reported by the Northeast and the Lake Huron water treatment plants.)

Contaminant	Test Date	Units	Health Goal MCLG	Allowed Levels MCL	Level Detected	Range of Detection	Violation	Likely Source
Disinfectant Residual and Disinfection By-Products - Monitoring in Distribution System								
Total Trihalomethanes (TTHM)	Feb-Nov 2010	ppb	N/A	80	20.8	7.2-40.9	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	Feb-Nov 2010	ppb	N/A	60	10.1	4.7-18.6	No	By-product of drinking water disinfectant
Disinfectant (chlorine) Residual (ppm)	Jan-Dec 2010	ppm	MRDLG 4	MRDL 4	.73	.56-.88	No	Water additive used to control microbes

Haloacetic acids (HAA5)
HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.

Total Trihalomethanes (TTHM)
Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Compliance is based on the total.

2010 Turbidity - Monitored every 4 hours at Plant Finished Water Tap			
Highest Single Measurement Can not exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation Yes/No	Major Source in Drinking Water
.14 NTU	100%	No	Soil Runoff

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

2010 Microbiological Contaminants - Monthly Monitoring in Detroit and Mount Clemens Distribution Systems					
Contaminant	MCLG	MCL	Highest Number Detected	Violation Yes/No	Major Sources in Drinking Water
Total Coliform	0	Presence of Coliform bacteria in 5% of monthly samples	In one month 0	No	Naturally present in the environment
E. coli or fecal coliform bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E. Coli positive	Entire year 0	No	Human waste and animal fecal waste

Charter Township of Clinton Lead and Copper Results

Lead and Copper Monitoring at Customer's Tap								
Contaminant	Test Date	Units	Action Level (AL) In parts per billion	90th Percentile Value	Number of Samples Over AL	Violation yes/no	# of Samples Required	Major Sources in Drinking Water
Lead	Jun 1 – Sept 30 2008	ppb	15	0	0	No	18	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	Jun 1 – Sept 30 2008	ppm	1.3	.038	0	No		Corrosion of household plumbing systems; Erosion of natural deposits.

* The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

Important Health Information about Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Charter Township of Clinton is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline 800-426-4791, or at www.epa.gov/safewater/lead.

City of Detroit Public Water System Detected Contaminants Table

(The results represent a combination of contaminants reported by the Northeast and the Lake Huron plants.)

Contaminant	Test Date	Units	Health Goal MCLG	Allowed Levels MCL	Detected Level	Range of Detection	Violation Yes/No	Major Source in Drinking Water.
REGULATED INORGANIC CHEMICALS: BASED ON THE HIGHEST SINGLE MEASUREMENTS.								
Fluoride	4/2011	ppm	4	4	1.25	N/A	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate	4/2011	ppm	10	10	.25	N/A	No	
Barium	6/9/08	ppm	2	2	0.01	N/A	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Selenium	6/9/08	ppb	50	50	1	N/A	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Special Monitoring				
Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	N/A	N/A	4.53	Erosion of natural deposits

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Regulated Contaminant	Treatment Technique	Running Annual Average	Monthly Ratio Range	Violation Yes/No	Typical Source of Contamination
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each month and because the level was low, there is no requirement for TOC removal				Erosion of natural deposits

IMPORTANT DRINKING WATER INFORMATION

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to reduce the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791.

City of Mount Clemens Public Water System

The table below lists all the drinking water contaminants detected during 2010. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. All testing conducted in 2010, unless otherwise noted.

Regulated Contaminant	MCL	MCLG	Level Detected	Range of Detections	Sample Date	Violation Yes/No	Typical Source of Contaminant
Fluoride (ppm)	4	4	1.0	N/A		No	Erosion of natural deposits from fertilizer and aluminum factories.
Bromate	10	0	0	0-0	Monthly	No	By-product of drinking water disinfection

Special Monitoring and Unregulated Contaminant	Level Detected	Sample Date	Typical Source of Contaminant
Sodium (ppm)	22	9/07/10	Erosion of natural deposits

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. The City of Mount Clemens tested a wide variety of unregulated contaminants. The unregulated contaminant test results are available to customers by contacting the Mount Clemens Utilities Department.

2010 Turbidity -Monitored every 4 hours at Plant Finished Water Tap								
Highest Single Measurement Can not exceed 1NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)				Violation Yes/No		Major Source in Drinking Water	
.20 NTU	100%				No		Soil Runoff	
Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.								
Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Level Detected	Range of Detection	Violation Yes/No	Major Source in Drinking Water
Disinfection Residuals and Disinfection By-Products-Monitoring in Distribution Systems								
Total Trihalomethanes (TTHM)	2010	ppb	N/A	80	58.4	19-130	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2010	ppb	N/A	60	19.8	0-56	No	By-product of drinking water disinfectant
Disinfectant (chlorine) Residual (ppm)	2010	ppb	MRDLG 4	MRDL 4	.99	.32-.99	No	Water additive used to control microbes

Regulated Contaminant	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements.The TOC was measured each month and because the level was low there is No Requirement for TOC removal.	Violation Yes/No	Typical Source of Contaminant
Total Organic Carbon (ppm)		No	Erosion of natural deposits.

Microbial Contaminant	MCL	MCLG	Number Detected	Violation Yes/No	Typical Source of Contaminant
Total Coliform Bacteria	1 positive monthly sample (5% of monthly samples positive)	0	0 In One Month	No	Naturally present in the environment
Fecal Coliform and E Coli	Routine and repeat sample total Coliform positive, and one is also fecal or E Coli positive	0	0 In Entire Year	No	Human and animal waste

Health and Safety Information

The following information is mandatory language provided by the Environmental Protection Agency.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants that include salts and metals, can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants include synthetic and volatile organics which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

In this report's tables you will find many terms and abbreviations that might be unfamiliar to you. To help you better understand these terms we've provided the following definitions:

Definitions and Terms

Parts per million (ppm)
The ppm is equivalent to milligrams per liter.
A milligram = 1/1000 gram.

Parts per billion (ppb)
The ppb is equivalent to micrograms per liter.
A microgram = 1/1000 milligram.

Nephelometric Turbidity Unit (NTU)
Measures the cloudiness of water.

Action Level (AL)
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT)
A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level
The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal
The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health.

Maximum Residual Disinfectant Level Goal (MRDLG)
The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL)
The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

N/A - Not applicable

Picocuries per liter (pCi/l) - A measure of radioactivity

Special Sewer Information Section

What Should I Do When My Sewer Is Backing Up?

Call the Water and Sewer Department at one of the following numbers.

Water and Sewer Department Charter Township of Clinton Main Office

(586) 286-9300 8:30 am to 4:30 pm Weekdays

Shook Road Maintenance Facility

(586) 791-1766 7:00 am to 3:30 pm Weekdays

After Hours Emergency Number

(586) 493-7900 After hours calls, are handled by the Police Dispatch operator.

A representative of the Water and Sewer Department will respond as soon as possible by visiting the site to determine if the problem is the responsibility of the township or the user. After business hours, the Water and Sewer Department has an on-call dutyman to maintain 24-hour coverage with no service fee.

ALL WATER AND SEWER DEPARTMENT EMPLOYEES CARRY PICTURE IDENTIFICATION.

Whose Sewer Is It?

The Water and Sewer Department cleans and maintains the main line sanitary sewers generally located within a public right-of-way. As a rule these sanitary sewers are 10 inches or larger in diameter. The sanitary sewer lateral, generally six inches in diameter, is installed and maintained in its entirety by the user as per the Codified Ordinances of the township.

Who Do I Call To Clean My Sanitary Sewer House Lead?

If conditions allow, call three drain cleaner specialists to compare prices. Ask each what the minimum cost is? How many feet of cleaning does this include? How much for each additional foot? Do they offer a warranty?If so how long and what does it include? If one bid is extremely low you may wish to ask for references, call the Better Business Bureau etc. Once they open up the drain ask them to clean it with the largest cleaning tool they can safely use.

What Should I Do If They Can Not Clean My Sanitary Sewer Lead Because A Broken Pipe Has To Be Replaced?

It is suggested that you hire a drain contractor with equipment to insert a closed circuit television camera into the sanitary house lead to locate and view the obstruction. It is much cheaper to locate and view the problem and possibly clean your sewer before it is excavated for repairs. Drain cleaning contractors with this type of equipment are listed in the phone book. If it is confirmed that your sanitary sewer lateral needs to be replaced be advised any contractor hired must be registered with the Water and Sewer Department in Clinton Township. Not all drain cleaning contractors are registered to repair and/or install sanitary sewer laterals. Registered contractors must meet certain standards, have proper insurances and post a bond covering their work. Calling three contractors for price estimates is also suggested if time allows.

My Basement Flooded, What Should I Do ?

During and following flooding, contact utility companies for information and advice on precautions and safety measures. Do not handle connected electrical cords or appliances if the current is still on. Do not light a flame in an enclosed area containing gas fired or oil fired appliances. If electricity is connected to an appliance which has had the motor controls submerged, do not attempt to start it until you have consulted a qualified service company.

Cleaning and Disinfecting

Provide as much ventilation as possible by opening windows, doors and running fans to allow moist air to escape. Anything that has been in contact with flood waters should be considered contaminated and must be disinfected. Walls and floors can be scrubbed with a stiff brush using a household detergent in water. Surfaces may be disinfected by using a chlorine solution rinse made up of eight tablespoons (1/2 cup) common household bleach per gallon of clean warm water. Chlorine bleach is an effective disinfectant, but should never be mixed with ammonia, since this combination produces poisonous gas. Professional cleaning services are listed in the yellow pages under “Fire & Water Damage Restoration”.

Special Sewer Information Section

What Items Can Be Salvaged?

All hard surfaced household goods such as chests, metal boxes, toys, etc., should be thoroughly washed in soap and warm water and disinfected in a chlorine solution. Stuffed and upholstered furniture, mattresses, toys, and similar items are often impossible to decontaminate and disinfect with conventional liquid or spray type germicide. Consult the telephone directory for firms specializing in furniture, carpet and upholstery cleaning, if salvaging is desired.

Discard all non-hermetically sealed fruits, vegetables and stored food items which were in direct contact with flood waters. Jars, bottles and similar containers with crimped or screw-on caps, lids or covers as well as cork or paraffin tops may not safely prevent product contamination. Hermetically sealed, vacuum or pressure packed foods can be salvaged by thoroughly washing the exterior surfaces with detergent and hot water, followed by immersion in a chlorine solution for at least 15 minutes.

Personal Hygiene

Protect yourself by wearing rubber gloves and frequently washing your hands in warm chlorinated water particularly before eating or smoking. Use care to prevent tracking sewage and contaminated flood waters into areas that are clean. All clothing should be washed at the end of the day. You should take a hot shower.

Notice to Township Property Owners Who Experience A Sanitary Sewer Overflow or Back Up

You must file a written claim with the township's Water and Sewer Department within 45 days of experiencing an overflow or backup of a sewage disposal system. Claim forms are available upon written or telephone request from the Water and Sewer Department at the Civic Center. Notice should be mailed and/or delivered to the Water and Sewer Department at 40700 Romeo Plank Road, Clinton Township, MI 48038. Failure to provide the required notice within the prescribed time limit will prevent recovery of damages. Please contact the Water and Sewer Department immediately upon discovery of an overflow by calling 586-286-9300 during regular business hours or at 586-493-7900 after business hours.

Who Should I Call?

Ask a friend if they know someone or look in the phone book for drain cleaners and repair contractors. Call the Water and Sewer Shook Road Facility 586-791-1766 about any contractor they might know is working in the area.

Clinton Township Can Not Endorse Any Drain Cleaner or Contractor.

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The Lake Huron watershed includes numerous short, seasonal streams that drain to Lake Huron. Source water from the Detroit River comes from Lake St. Clair, Clinton River, Detroit River, Ecorse River, in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watershed in Canada.

The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, (DWSD), and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contamination.

The susceptibility rating is on a seven-tiered scale from very low to very high based primarily on geological sensitivity, water chemistry, and contaminant sources.

The susceptibility of our Detroit River source water intakes were determined to be highly susceptible to potential contaminants. However, all four Detroit water treatment plants that use source water from the Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.

The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. The Lake Huron water treatment plant has also historically provided satisfactory treatment of this source water to meet drinking water standards.

DWSD has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. DWSD participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan.

The Mount Clemens source water is categorized as highly susceptible to potential contaminants, given land uses and potential contaminant sources within the source water area. However, it is noted that historically, the Mount Clemens Water Treatment Plant has effectively treated this source water to meet drinking water standards.

If you would like to know more information about this report or a complete copy of this report, contact the township's Water and Sewer Department by calling 586-286-9300.

Don't let your rain go down the drain. Plant a Rain Garden

Spring rains are a sign of colorful blooms and sunny days ahead, but they also pose a serious threat to the health of our local waterways because of excessive runoff that overwhelms the land's ability to soak up water. You may feel that there is nothing you can do, but establishing rain gardens around our homes is one simple and rewarding solution to the runoff problem.

A rain garden is composed of native plants chosen specifically to capture, soak up, and filter rainwater runoff from your roof and paved surfaces. Planted with native grasses, wildflowers, and shrubs, a rain garden can attract birds and butterflies to your yard in addition to providing water quality benefits.

Rain gardens should be placed in low-lying areas around your home, where roof and driveway runoff and yard drainage can be directed. The site should be low enough to hold water as it soaks into the soil over a period of several days. Sandy soils are a plus, as they will absorb water more quickly

Potential species range from coneflowers, blue flag iris, and bluebells to switchgrass, red osier dogwood, and redbud. Plant a rain garden, and you just might find yourself spending a bit more time enjoying the diversity in your yard and helping your local stream at the same time.

IMPORTANT OUTDOOR WATER USE RESTRICTIONS

Clinton Township Water Irrigation Rules are Mandatory

Beginning May 15 and extending through October 15 of each calendar year, the Charter Township of Clinton will enforce the following mandatory irrigation and outdoor water use restrictions as well as limitations on water use during emergencies. These new rules have been adopted in order to receive the best price possible for water and sewer services provided by the City of Detroit.

Properties with even numbered addresses may irrigate on even numbered dates of the month. Properties with odd numbered addresses may irrigate their lawns and gardens on odd numbered dates of the month.

Properties with automatic or manually activated irrigation systems connected to the municipal water system must follow these restrictions that have been adopted in order to reduce water demand during peak usage hours.

You are prohibited from watering your lawns or gardens between the hours of 5 a.m. and 11 p.m. EST. A property with a newly seeded or newly sodded lawn may for the first 21 days following planting irrigate their lawn as needed, except for between the hours of 5 a.m. and 9 a.m.

Properties with manual irrigation systems such as garden hoses and sprinklers not connected to an automatic system must follow these rules:

Irrigation is prohibited between the hours of 5 a.m. and 9 a.m. During any other hours the irrigation must be attended to or monitored by the user.

In the event of a water emergency, the Charter Township of Clinton is authorized to prohibit or limit the following water uses: sprinkling of lawns and/or gardens and/or private car washing. Prior notice of this action will be provided unless emergency circumstances prohibit such a warning